

REMARKS

In the Office Action dated January 31, 2006, the Examiner objected to claim 21 due to an “informality” which is addressed in the present amendment/response. The Applicants thank the Examiner for suggesting correction of the informality. Claims 21-26 were rejected under 35 U.S.C. 102(b) as being anticipated by Hedges (EP Patent No. 0 055 314). Claims 21 and 24 are further amended herewith to more clearly define the invention. Claims 21-26 remain in the application for further consideration.

In rejecting the claims under 35 U.S.C. 102(b) as anticipated by Hedges, the Examiner asserted with respect to claim 21 that, “Hedges discloses a method for managing a network of devices consuming a resource provided by a utility, said method comprising the steps of initiating a state change, from a utility computing platform, to affect resource consumption at least one premise (page 10, lines 1-9 and Figure 1), receiving said state change from said utility computing platform at a gateway at said at least one presmise (page 10, lines 3-6 and Figure 1), processing, at said gateway, said state change from said utility computing platform to determine an energy management scheme for affecting resource consumption at said at least one premise (page 13, lines 1-13 and Figure 2), translating, at said gateway, said state change from said utility computing platform into a native format used by at least one device in said network of devices consuming said resource (i.e. convert the RF state change signal to corresponding load controlling logic) (page 12, lines 15-25 and Figure 2), and generating control signals (page 12, lines 21-25) to control said network of devices consuming said resource (page 15, lines 18-25), said control signals being a function of said state change from said utility platform and said energy management scheme determined by processing at said gateway (page 12, lines 21-25 and page 13, lines 1-13).”

Generally, Hedges discloses more of an “open-loop” energy management system than is disclosed and claimed by the Applicants. Hedges can only **deduce** the amount of energy that is demand-limited at an individual premise. Hedges can not, and does not, know at the utility platform level what is happening at an individual residence or for that matter at an individual energy consuming appliance. This is because Hedges only collects meter data for a population of residences, at the sub-station level. No individual premise level data communication from the premise to the utility is disclosed or suggested in Hedges.

In contrast, according to the present invention, the amount of energy that is managed/demand-limited at an individual premise can be directly measured and known at the utility via the claimed relationship of the utility computing platform, the gateway at the premise and the network of consuming devices on the premise. According to the invention claimed, and in contrast to Hedges, the gateway acts autonomously (i.e. in a premise-based closed-loop). The gateway receives an energy management scheme and based on the data it is collecting it adjusts the consumption to best meet the scheme. Hedges in contrast does not provide for autonomous, automated premise-level energy management.

Furthermore, with the claimed invention, the utility platform acts autonomously (i.e. in a closed-loop) in that a utility-wide energy management scheme can be established via the computing platform with knowledge of information fed back from the gateway on the premise. That is, the computing platform collects premise data (as described, with a high degree of specificity) from each and every premise, and can adjust energy consuming devices through the gateway and network (again with a high-degree of specificity directed at the energy consuming devices). Each premise can be managed independently until the energy management scheme is met at both the premise level and at the utility level. Hedges is merely sending out messages to

limit demand and can ONLY measure the effect at the substation level. Hedges system can not tell, for example, if the air conditioner is shut off at a particular premise. Due to the closed-loop nature of the claimed invention it is possible to know if an air conditioner is turned off at the individual premise level. Accordingly, a more accurate and detailed energy management scheme can be implemented to each premise and consequently a much higher level of success is achieved in implementing a utility-wide energy management scheme.

More specifically, in making the rejections over Hedges, the Examiner erroneously equates converting an RF signal that transmits information “in the form of a demand limit increase or decrease...” (Hedges, pg. 9, lines 17-25), with Applicants’ claimed translation of state change signals “into a native format used by at least one device” in a network of devices in applicants’ configuration. In contrast to Applicants’ invention where a premise is subject to a claimed “energy management scheme for affecting resource consumption” at the premise, and state change signals are translated at a gateway to implement the premise’s energy management scheme (i.e. at the premise level), Hedges does not effect energy management at an individual premise level. Rather, as clearly disclosed in Hedges all that is sent down to the premise level is a demand limit. There is no automated control or individual premise-level energy management scheme executed via a gateway and network.

Hedges provides that:

“it will be observed that the utility company’s objective has been fulfilled with a minimum and equal impact upon the lifestyle of the power consumers in each of the residences, i.e., the demand limit (previously selected by each consumer or imposed by the utility on each consumer) has been adjusted downwardly (or upwardly where possible) without arbitrarily imposing on the consumer the choice as to which specific appliances or loads in his residence must be turned off

in order to avoid exceeding the new demand limit. Thus, customer 1 of sub-station “a” who may be drying laundry can continue doing so provided he is willing to forego a simultaneous hot shower and customer 2 of sub-station “n”, who is away from home, can nevertheless keep his residence cool and his pool clean by the automatic operation of his air condition and pool filtration pump because he does not need to use cooking, laundry or bathing facilities while away from home. **However, as will be noted, each residential consumer has been subjected to precisely the same utility-control, namely, the demand limit for each residence has been reduced by an equal percentage** (Hedges, pg. 9, lines 22, pg. 11, lines 14, emphasis added).

Hedges merely sends/imposes a demand limit on individual premises. Hedges does not disclose or suggest a gateway at a premise that communicates in a native format with devices in the premise such as Applicants particularly claim. In stark contrast, Hedges does not generate control signals to control a network of devices on the premise, such as applicant specifically claims. Further, Hedges sends only a demand limit and each residence/consumer is subjected to “precisely the same utility-control, namely, the demand limit...” (Hedges, pg. 11, lines 11-13). In the invention disclosed and claimed by Applicants, control signals are generated as “a function of said state change from said utility platform and said energy management scheme for said premise determined by processing at said gateway” as specifically recited in Applicant’s claim 21 as amended.

Significantly, Hedges does not “determine an automated energy management scheme for affecting resource consumption” at a premise. Quite to the contrary, Hedges teaches away from premise-level automation and provides the same utility control to each premise in the form of a demand limit. As clearly disclosed in Hedges (see e.g. Fig. 1), any energy management is done basically at the substation and power dispatch level. Only a “total demand limit” is determined

and transmitted to the residence based on metering the substations. Applicants' claimed invention in claim 21 as amended is patentably distinct from the energy management system disclosed in Hedges.

The Examiner further rejected claim 22, with the assertion that "Hedges discloses... feeding back to said utility computing platform results of said monitoring step...". However, as discussed hereinbefore, Hedges does not do ANY monitoring at the premise/gateway level (ONLY at the substation level). Furthermore, Hedges does not feed the results of premise level monitoring back to a utility computing platform (again, ONLY demand at the substation level is considered at the utility level in Hedges).

Claims 23-26 are dependent from allowable claims 21 or 22 (directly or indirectly), therefore for at least the foregoing reasons those claims are allowable as well. One point of note, however, with regard to claim 25 is that no mention is made whatsoever in Hedges of any rules engine or processing at a gateway, in a manner that applies rules from a rules engine. The portion of Hedges that the Examiner erroneously cites, (pg. 14, lines 2-13) relates to restoration of loads.


CONCLUSION

In view of the above, reconsideration and allowance of this application as amended are now believed to be in order, and such action is hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below. The Examiner is invited and encouraged to telephone the undersigned with any concerns in furtherance of the prosecution of the present application.

Please charge any fee(s) that may be associated with this Response to Deposit Account No. 50-0369.

Respectfully submitted,

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